विदेशी कम्पनियों से राडार तथा डापलर राडार का खरीदा जाना

4860. **श्री जनेश्वर मिश्र:** क्या प्रधान मंत्री यह बताने की कृपा करेंगे कि:

(क) क्या भारतीय मौसम विभाग ने तूफान का पता लगाने वाले दस राडार (एस डी आर) तथा तीन डापलर राडार विदेशी कम्पनियों से खरीदने का फैसला किया है;

(ख) क्या भारत इलैक्ट्रानिक्स लिमिटेड तथा इंडियन स्पेस रिसर्च आर्गनाइजेशन जैसी भारतीय कम्पनियां ऐसे राडारों का उत्पादन करने में सक्षम नहीं है;

(ग) क्या देश के ये दोनों सरकारी उपक्रम अन्तर्राष्ट्रीय स्पर्धा में तकनीकी रूप से ठहरने में सक्षम नहीं है;

(घ) क्या सरकार इन उपक्रमों का नवीनीकरण करने अथवा इन्हें बन्द करने का विचार रखती है; और

(ङ) इस संबंध में वास्तविक ब्यौरा क्या है?

प्रधान मंत्री कार्यालय में राज्य मंत्री तथा परमाणु ऊर्जा और अंतरिक्ष विभागों में राज्य मंत्री तथा विज्ञान और प्रौद्योगिकी मंत्रालय में राज्य मंत्री (श्री भुवनेश चतुर्वेदी): (क) भारत मौसम विभाग की ओर से पुराने पड़ चुके राडारों को बदलने के लिए पूर्ति एवं निपटान महानिदेशालय ग्लोबल टैंडरों के माध्यम से 10 राडार (चार तूफान का पता लगाने के लिए तथा छः हवा का पता लगाने के लिए) प्राप्त कर रहा है। एक विदेशी फर्म को आदेश दिये जा चुके है। पूर्ति एवं निपटान महानिदेशालय द्वारा चक्रवात का पता लगाने वाले तीसरे राडार के विकल्प मौसम के साथ दो डापलर मौसम राडारों को खरीदने के लिए ग्लोबल टैंडर जारी किए गए है।

(ख) तथा (ग) डापलर मौसम राडार प्रौद्योगिकी भारत में उपलब्ध नहीं है। बी ई एल तूफान का पता लगाने वाले और हवा का पता लगाने वाले राडारों का निर्माण करने में सक्षम है, लेकिन उसकी विशिष्टियां भारत मौसम विज्ञान विभाग से भिन्न है। अपनी ग्लोबल टैंडर इन्क्वायरी के जवाब में प्राप्त सभी टैंडरों का तकनीकी और वाणिज्यिक मूल्यांकन करने के बाद पूर्ति एवं निपटान महानिदेशालय द्वारा तूफान का पता लगाने वाले राडारों के लिए आदेश दिये गये थे।

(घ) तथा (ङ) एक उन्नत राडार प्रणाली विकसित करने के लिए इसरो, मैसर्स बी ई एल, भारतीय उद्योगों तथा अनुसंधान के साथ मिलकर भारत विज्ञान विभाग के साथ सहयोग कर रहा है।

Letter Written By MPs

4861. SHRI MOHAMMED AFZAL ALIAS MEEM AFZAL: Will the PRIME MINISTER be pleased to state:

(a) what is the number of letters written by Members of Parliament to the Ministry of Science & Technology during the period from 1st April, 1994 to 31st March, 1995;

(b) what is the number of letter acknowledged out of them;

(c) what is the number of letters in respect of which final replies were sent; and

(d) what is the break up of final letters issued by the Ministry containing positive and negative replies respectively?

THE MINISTER OF STATE IN PRIME MINISTER'S OFFICE AND MINISTER OF STATE IN DEPARTMENT OF ATOMIC ENERGY AND SPACE AND MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BHUVNESH CHATURVEDI): (a) to (c) 99 letters were received from Members of Parliament during the period and all the letters have been acknowledged. Final replies have been sent in 84 cases.

(d) The replies were given after careful examination in the light of Government rules, regulations, orders and instructions etc.

Technology Developed by National Remote Sensing Agency

4862. SHRI G.Y. KRISHNAN: Will the PRIME MINISTER be pleased to state:

(a) whether National Remote Sensing Agency has developed technologies in various fields;

(b) if so, what are the details of the

products invented and whether these products are import substitution, if so, the serial wise details thereof;

(c) whether these products are for captive consumption or could be used by others also; and

(d) the names of the products which have not yet been commercialised, their tentative project cost and expected demand?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE AND MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPRTMENTS OF ATOMIC EMERGY AND SPACE (SHRI BHUNESH CHATURVEDI): (a) Yes Sir.

(b) and (c) The product technologies developed and already transferred to industries, with details whether these are import substitution items or for captive consumption are given below:—

Sl. No.	Technology	Import Substitution	Captive Consumption
1	2	3	4
1.	Multispectral additive colour viewer	Yes	No
2.	Optical Reflecting Projector	Yes	No
3.	Light Table with coordinate measuring		
4.	Desk & viewing desk (3 versions)	No	No
5.			
6.	Illuminating Magnifier	No	No
7.	Dual Densitometer	No	No
8.	Colour Composite Printer	Yes	No
9.	Microfiche camera	Yes	No
10.	Analog Image Analyser	Yes	No
11.	Interactive Intelligent Graphic Display Terminal	Yes	Yes
12.	Micro MIDAS	Yes	No
13.	MAP Master	No	No
14.	Optical Pantograph	Yes	No
15.	Automatic Microfiche camera	Yes	No
16.	Photowrite System	Yes	Yes
17.	Drum Scanner digitiser	Yes	No
18.	Optical Transferoscope	Yes	No
19.	Optical Polarisation Sensor	No	No
20.	Hand Held Ratioing Rediometer	No	No
21.	Point Light Source contact printer	Yes	No
22.	Precision coordinate measuring system	Yes	No
23.	Multifunction Front—end Processing Hardware (MFPH)	No	Yes
24.	Transputer based image analysis system	No	Yes
25.	Stereo Optical Transferoscope	Yes	No
26.	Digital Browsing System	Yes	No
27.	SCR Power Amplifier	No	Yes

1	2	3	4
28.	Multifunction Digital Demodulator and Bit-Synchroniser	Yes	Yes
29.	Multifunction Simulator	No	Yes
30.	Texturemeter	No	Yes
31.	Laser Range Finder	No	Yes
32.	Auto Focus Enlarger	No	Yes

(d) The names of products which are under development and to be commercialised are the following:—

1. UNIX Based Quick Look Browsing System
2. Pattern recognition and image enhancement software
3. Micro-MIDAS (Mk-II)
4. Frame Synchroniser

These technologies being still under development, the tentative project cost and expected demand are not available.

Technologies Developed by ISRO

4863. SHRI G.Y. KRISHNAN: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that Indian Space Research Organisation, Bangalore and its branches have developed technologies for various products for its captive consumption as well as general use; if so, what are the details thereof; and

(b) what are the names of the products, serial-wise for which technologies are yet to be transferred to the entrepreneurs by ISRO, their tentative annual requirements, unit price (Appro.); project cost and details of buy back guarantee by ISRO and other agencies?

THE MINISTER OF STATE IN THE PRIME MINISTERS OFFICE AND MINISTER OF STATE IN THE DEPARTMENTS OF AUTOMIC ENERGY AND SPACE AND MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BHUVNESH CHATURVEDI): (a) Yes, Sir. So far, Indian Space Research Organisation has developed and transferred to industries 224 technologies of these eight technologies covered products, which required buyback from ISRO. Further, 88 technologies related to space related applications, for which products are bought by various user Ministries and agencies outside ISRO. These include items like telecommunication ground systems, disaster warning receiver systems and remote sensing data interpretation equipment. Rest of 128 technologies transferred belonged to products of general use.

(c) Several technology developments in ISRO are being followed up in fields like chemicals, electronics, electromechanical, telecommunications and optical fields for adaptations to general use. Howeves, none of these items are assessed to be required primarily for ISRO's buyback. Hence the annual requirements, unit price and project cost are decided by agencies marketing such products. Normally such data could be worked out when the technology is mature for transfer and often in conjunction with industries acquiring technologies.

Supply of Cryogenic Booster Engines to India

4864. SHRI V. NARAYANASAMY: Will the PRIME MINISTER be pleased to state:

(a) whether any discussion was held recently between the team of Senior